

PRODUCT DATA SHEETS

NYLATRON® MC 901 (PA 6) (blue)

NYLATRON MC901 (produced by a similar process to that of Nylatron GSM is a highly versatile general engineering plastics due to its excellent combination of properties.

- High stiffness / strength
- Continuous working temperature 105°C (max 80°C)
- Good impact strength
- Good chemical resistance (pH 5-11)
- Good wear resistance
- Low weight (1/6 vs steel)
- Good dynamic bearing material
- UL 94 V-0 rating at 12.7mm thick only
- Blue colour

Application : Gears, bearings, rollers, wheels, cams, nuts, valve seats, pulleys, gaskets etc.

Delivery Programme

Rod 1m long		
Diameter (mm)	50 (Min)	400 (Max)
Square Rod 1m long		
Size (mm)	100 (Min)	400 (Max)
Tube 1m & 2m long		
O.D. (mm):	50 (Min)	150 (Max)
I.D. (mm)	20 (Min)	135 (Max)
Tube 1m & 1.2m long		
O.D. (mm):	155 (Min)	260 (Max)
I.D. (mm)	60 (Min)	235 (Max)
Tube 600mm long		
O.D. (mm):	210 (Min)	600 (Max)
I.D. (mm)	80 (Min)	570 (Max)

Tube also available on request up to 1m O.D. please discuss your requirements with our sales department.

Plate

1220mm wide x 2000mm long

Thickness (mm):	10 (Min)	50 (Max)
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Plate

610mm wide x 1220mm long

Thickness (mm):	60 (Min)	100 (Max)
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Technical Specification

Property	ASTM Test Method	Units	NYLATRON MC901
Colour	-		Blue

Specific Gravity	D792	-	1.15 - 1.17
Water Absorption Saturation in water	D570	%	6 - 7
Tensile Strength	D638	N/mm ²	74 - 96
Tensile Modulus	D638	N/mm ²	2437 - 3130
Elongation	D638	%	10 - 100
Flexural Strength	D790	N/mm ²	100 - 109
Flexural Modulus	D790	N/mm ²	-
Impact - Izod Notched [23°C, 50% RH]	D256	J/M	126
Hardness	Rockwell	-	R112-120
	Shore D	-	80 - 85
Melt Point	D2117	°C	225
Max allowable service temp in air			
- for short periods (1)	-	°C	170
- continuously for 20000hrs (2)	-	°C	90
Minimum Service Temperature	-	°C	-40
Linear thermal expansion coefficient	D696	K ⁻¹ x 10 ⁻⁵	10
Thermal Conductivity	C117	W/K.M	0.29
Flammability	D635	-	Self Extinguishing
UL (thickness in mm) [Tests carried out using UL test methods by DSM EPP].	UL-94	-	V-2(3)
Volume Resistivity	D257	Ohm.cm	10 ¹²
Dielectric Strength (3)	D149	kv/mm	>20
Outside applications - UV resistance	-	-	C
Acids - Strong [pH < 3]	-	-	D
Alkalis - Strong [pH > 11]	-	-	C
Chlorinated Hydrocarbons	-	-	A
Hot Water	-	-	C

- (1) Only a few hours, with little or no load applied
- (2) After these periods mechanical properties reduce by approx 50%. *Note, however, that service temperatures are load and time dependant.*
- (3) Test specimen 1.6mm thick unless otherwise stated.

- 'A' No attack
- 'B' Mild attack by absorption
- 'C' Dimensional change due to absorption
- 'D' Decomposition in short time
- 'E' In steam - at 160°C, decomposition after short time

The data are typical values and are not intended to represent specifications. Their aim is to guide the user towards a material choice. All statements, technical information and recommendations in this product data sheet are presented in good faith, based upon test believed to be reliable and practical field experience. However, Bay Plastics Ltd cannot guarantee the accuracy or completeness of this information, and, it is the customer's responsibility to determine the suitability of products in any given application.

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